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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(Marine Engg.) (2013 Batch) (Sem.-7)
SHIP SAFETY, ENVIRONMENTAL PROTECTION AND SAFE
WATCH KEEPING

Subject Code : BTMR-702

M.Code : 74251

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**1. Answer briefly :**

- a) What are the possible causes of explosions on ships?
- b) Enumerate various fire extinguishing appliances used in ships.
- c) How does spontaneous combustion take place in ships?
- d) Explain the procedure for re-entry in ships after putting off fire.
- e) Give the implications of SOLAS convention.
- f) Enumerate the steps involved in undertaking a fire drill.
- g) How first aid is provided in case of fire in ships?
- h) What information ISM, SMC and ISO codes carry?
- i) How life boat engines and accessories are helpful in rescue operations?
- j) How do ventilation systems affect fire fighting?

SECTION-B

2. Explain the guidelines for ship fire prevention and control.
3. Describe the advantages of various fire extinguishing agents including vapourizing fluids and their suitability for ship's use.
4. Describe the requirements in respect of materials of construction and design of ships.
5. How do bulk carbon dioxide and inter gas systems operate on ships for fighting fire?
6. Explain the use of helicopter rescue and launching arrangements used for rescuing operations.

SECTION -C

7.
 - a) Draw the fire triangle & explain the terms related to it.
 - b) Discuss the statutory requirements for firefighting systems and equipment on different vessels.
8.
 - a) Explain Smoke detector & alarm with neat sketch.
 - b) Describe the requirements of commissioning and periodic testing of fire sensors and detection systems in ships.
9.
 - a) Discuss the steps involved in rescue operations from affected compartments in ships.
 - b) Write short note on characteristic features of Indian Merchant Shipping Act and Rules for ensuring safety in ships.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.